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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,231	01/26/2004	Keiichiro Ishihara	03500.017853.	6539

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EXAMINER	
TRAN, HUAN HUU	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/763,231	ISHIHARA, KEIICHIRO	
	Examiner	Art Unit	
	Huan H. Tran	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-56 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-56 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species:

(i) a multi-beam optical scanning apparatus comprising: plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality of radiation points toward a surface to be scanned; wherein where a first radiation point radiation point for radiating the light beam, out of the plurality of light beams emitted from said plurality of radiation points, which reaches the farthest location from a center of a deflecting facet of said deflecting means in the main scanning direction, a second radiation point is a radiation point for radiating another light beam, and an upstream-side external angular range is a range which lies in an angular range over which the light beam can be deflected by said deflecting means, and which exists on an upstream side in a rotational direction of said deflecting means relative to an effective scanning angular range at the time when the light beam deflected toward an effective scanning range on the surface be scanned, control performed such that the light beam from said second radiation point can be radiated prior to the light beam from light source means including said first radiation point in the upstream-side external angular range.

(ii) A multi-beam optical scanning apparatus comprising: light source means including a plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality of radiation points toward a surface to be scanned, the plurality of light beams radiated from said plurality of radiation points intersecting each other M times (M=2n+1; n is an integer) between said light source means and said deflecting means; wherein where a first radiation

point is a radiation point disposed on a most upstream side in a rotational direction of said deflecting means, out of said plurality of radiation points, a second radiation point is a radiation point for radiating another light beam, and an upstream-side external angular range is a range which lies in an angular range over which the light beam can be deflected by said deflecting means, and which exists on the upstream side in the rotational direction of said deflecting means relative to an effective scanning angular range at the time when the light beam is deflected toward an effective scanning range on the surface to be scanned, control is performed such that the light beam from said second radiation point can be radiated prior to the light beam from said first radiation point in the upstream-side external angular range.

(iii) A multi-beam optical scanning apparatus comprising: light source means including a plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality radiation points toward a surface to be scanned, the plurality of light beams radiated from said plurality of radiation points intersecting each other N times (N=2n; n is an integer) between said light source means and said deflecting means; wherein where a first radiation point is a radiation point disposed on a most downstream side in a rotational direction of said deflecting means, out of said plurality of radiation points, a second radiation point is a radiation point for radiating another light beam, and an upstream-side external angular range is a range which lies in an angular range over which the light beam can be deflected by said deflecting means, and which exists on the upstream side in the rotational direction of said deflecting means relative to an effective scanning angular range at the time when the light beam is deflected toward an effective scanning range on the surface to be scanned, control is performed such that the light beam from said second radiation point can be radiated prior to the light beam from said first radiation point in the upstream-side external angular range.

(iv) A multi-beam optical scanning apparatus comprising: light source means including a plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality of radiation points toward a surface to be scanned; wherein the light beam of said radiation point for radiating the light beam firstly incident on a deflecting facet of said deflecting means in the main scanning direction is radiated prior to the light beam from the other radiation point.

(v) A multi-beam optical scanning apparatus comprising: light source means including a plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality of radiation points toward a surface to be scanned; wherein where first radiation point is a radiation point for radiating the light beam, out of the plurality of light beams emitted from said plurality of radiation points, which reaches the farthest location from a center of a deflecting facet of said deflecting means in the main scanning direction, a second radiation point is a radiation point for radiating another light beam, and an upstream-side êxternal angular range is a range which lies in an angular range over which the light beam can be deflected by said deflecting means, and which exists on an upstream side in a rotational direction of said deflecting means relative to an effective scanning angular range at the time when the light beam is deflected toward an effective scanning range on the surface to be scanned, a width of the deflecting facet in a main scanning section is set to such a magnitude that the light beam reaching the location most spaced from the center of the deflecting facet at an end portion of the deflecting facet is eclipsed in the event that the light beam from said first radiation point for radiating the light beam reaching the location most spaced from the center of the deflecting facet is radiated prior to the light beam from said second radiation point in the upstream-side

external angular range, and control is performed such that the light beam from said second radiation point can be radiated prior to the light beam from said first radiation point in the upstream-side external angular range.

(vi) A multi-beam optical scanning apparatus comprising: light source means including a plurality of radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting a plurality of light beams radiated from said plurality of radiation points toward a surface be scanned; wherein a width the deflecting facet main scanning section is set to such a magnitude that the light beam last incident on an end portion of the deflecting facet is eclipsed in the event that the light beam from said radiation point for radiating the light beam last incident on the deflecting facet of said deflecting means is radiated prior to the light beam from the other radiation point, and the light beam of said radiation point for radiating the light beam firstly incident on the deflecting facet of said deflecting means in the main scanning direction is radiated prior to the light beam from the other radiation point.

(vii) 51. A multi-beam optical scanning apparatus comprising: light source means including at least three radiation points disposed with being spaced from each other in a main scanning direction; and deflecting means for deflecting at least three light beams radiated from said at least three radiation points toward a surface to be scanned; wherein where a first radiation point is a radiation point for radiating the light beam, out of the at least three light beams emitted from said at least three radiation points, which reaches the farthest location from a center of a deflecting facet of said deflecting means in the main scanning direction, a second radiation point is a radiation point for radiating another light beam, and an upstream-side external angular range is a range which lies in an angular range over which the light beam can be deflected by said deflecting means, and which exists on an upstream side in a rotational

direction of said deflecting means relative to an effective scanning angular range at the time when the light beam is deflected toward an effective scanning range on the surface to be scanned, a width of the deflecting facet in a main scanning section is set to such a magnitude that tue light beam reaching the farthest location from a center of the deflecting facet at an end portion of the deflecting facet is eclipsed in the event that the light beam from said first radiation point for radiating the light beam reaching the location most spaced from the center of the deflecting facet is radiated prior to the light beam from said second radiation point in the upstream-side external angular range, and control is performed such that the light beam from said second radiation point can be radiated prior to the light beam from said first radiation point in the upstream- side external angular range.

The species are independent or distinct because the limitations embodied in the wherein clauses in each of the identified species are mutually exclusive.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an

allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on W-F from 6:30 to 5; T are telework days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huan H. Tran
Primary Examiner
Art Unit 2861

hht
03/16/06